

## **Abstract**

### **Background& Aim**

*Medical emergencies can occur frequently in dental setting. Effective management of an emergency situation in the dental office is ultimately the dentist's responsibility. The lack of training and inability to cope with medical emergencies can lead to tragic consequences and sometimes legal action. For this reason, all health professionals including dentists must be well prepared to attend to medical emergencies. The present study assessed the knowledge of dentists and frequency of drugs and containings of the emergency kits as well as its affecting factors in general dentists' clinics of Ardabil city on 2018-2019.*

### **Materials and Methods**

*In this descriptive cross-sectional trial, 96 dentists of total 100 dentists in the citry were participated. The selection of dentists was done according to the lists existed in the legal medicine organizations. The level of knowledge of dentists was calculated according to their responses to the questionnaire items. The frequency of emergency drugs and devices was analyzed by exact fisher, chi-square and Monte Carlo tests regarding the dentist's gender, occupation type and level of knowledge.*

### **Results**

*Fifty one (53.1%) dentists participated in the medical emergency courses in dental settings, 66 (68.8%) received medical emergency education during undergraduate courses in dental school and 76 (80.0%) stated their need to receive more information regarding medical emergencies in dental settings. Forty-three (44.8%) faced medical emergencies in last year at their clinics. The mean scores of dentists' knowledge regarding drugs and emergency kit appliances was 6.04 of total 10 scores (range: 1-10). Fifty-one (54.3%) of dentists had poor knowledge, 35 (37.2%) had moderate and 8 (8.5%) had good knowledge level.*

*Adrenaline (62.7% vs. 38.2%;  $p=0.09$ ) and serum set (42.4% vs. 23.5%;  $p=0.053$ ) was highly found among male dentists than females. And, ringer serum was highly existed in private clinics than state clinics and private practice settings (33.3% vs. 15.4% and 10.9%;  $p=0.42$ ).*

*The frequency of anti-histamine (42.9%, 42.9% and 87.5% in the poor, moderate and good knowledge levels;  $p=0.049$ ); ringer serum (12.2%, 25.7% and 50.0% in the poor, moderate and good knowledge levels;  $p=0.032$ ); Angucat (28.6%, 37.1% and 75.0% in the poor, moderate and good knowledge levels;  $p=0.039$ ) and serum set (30.6%, 34.3% and 75.0% in the poor, moderate and good knowledge groups;  $p=0.049$ ) statistically increased together with the increased knowledge. At the same time, the frequency of adrenaline (57.1%, 60.0% and 12.5% in the poor, moderate and good knowledge levels;  $p=0.047$ ) and lidocaine (67.3%, 40.0% and 25.0% in the poor, moderate and good knowledge levels;  $p=0.011$ ) decreased with the increased knowledge levels. No other significant differences were noted regarding the studied variables.*

### **Conclusion**

*Therefore, general dentists working at Ardabil city showed lower levels of knowledge regarding medical emergencies in the dental settings; for them, participation in the continued education courses to improve their knowledge and prevent the fatal events for the patients was recommended.*

### **Key words**

*Emergency kit, Emergency conditions, Emergency appliances*